

## IMAGE IN CARDIOLOGY

# Echocardiographic appearance of a rare condition – tracheobronchomegaly



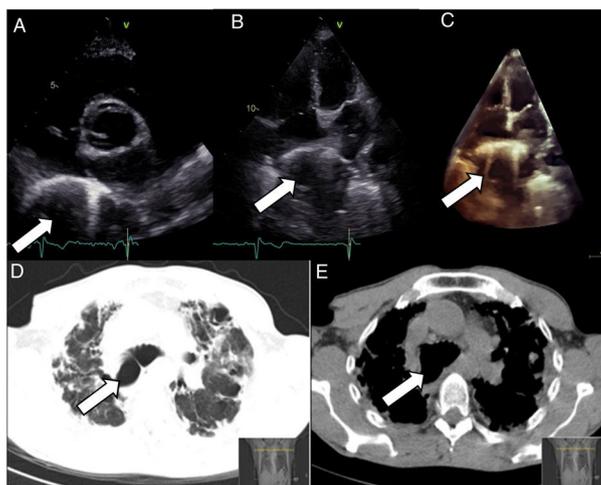
## Aspeto ecocardiográfico de uma condição rara - traqueomegalia

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**Figure 1** Transthoracic echocardiogram: parasternal short-axis view (A); two-dimensional apical 4-chamber view (B) and three-dimensional 4-chamber view (C) revealing a very large circular retroatrial mass, with irregular hyperechoic borders and hypoechoic center (arrow); thoracic high-resolution computed tomography, axial planes (D and E), revealing tracheobronchomegaly (arrow).

A 53-year-old-man, non-smoker, a cork worker with suberosis lung disease, was referred for echocardiography before lung transplantation. The transthoracic

echocardiogram showed preserved biventricular systolic function, moderate pulmonary artery hypertension (38 mmHg) and no major valve disease. However, a very large circular retroatrial mass was observed with irregular hyperechoic borders, causing some acoustic shadowing (compatible with calcium) and hypoechoic interior, without flow. The findings were compatible with an extracardiac mass without significant cardiac compression (Figure 1A-C, arrow).

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The chest computed tomography scan was reassessed to clarify the clinical scenario and significant dilatation of the trachea was observed (Figure 1D and E, arrow). This extracardiac finding represents a rare condition known as tracheobronchomegaly, also known as Mounier-Kuhn syndrome. It is characterized by marked dilatation of the tracheobronchial tree, frequently accompanied by peripheral bronchiectasis and diverticula. Tracheobronchomegaly appears to be caused by a congenital deficiency of elastic and smooth-muscle tissue. However, several cases in the literature suggest that this condition can be acquired, mainly in association with lung inflammation or fibrosis.

Clinical presentation varies widely, ranging from asymptomatic with preserved lung function to severe respiratory failure and death. This case highlights the invaluable role of transthoracic echocardiography in the identification of extracardiac findings. Moreover, the echocardiographic pattern of tracheobronchomegaly is an unforgettable feature of such a rare condition.

### **Conflicts of interest**

The authors have no conflicts of interest to declare.